

CLAIMS

1. A device for permanently controlling a ground for safety purposes and for preventing the risk of electrical shock risk to passengers on self-guided public transportation vehicles running on tires along a metal guide rail on the ground using at least one self-guiding assembly governing a moving directional assembly with at least one guide wheel traveling along the metal guide rail and utilizing electrical energy as the driving force, characterized in that the vehicle comprises at least two electrical contact elements separated from one another and in contact with the metal guide rail and in that these contact elements, together with the portion of the guide rail extending between them and a current passage detector, form a safety loop supplied by a low voltage electrical generator with terminals BT+ and BT-, said detector furnishing a signal indicating whether the safety loop is open or closed depending upon whether the electrical contact at the level of the contact elements is satisfactory or unsatisfactory, and in the latter case, engaging the safety elements or causing safety measures to be applied.
2. A device according to claim 1 characterized in that at least one of the electrical contact elements is supported by a self-guiding assembly.
3. A device according to claim 1 or 2 characterized in that the low electrical voltage is continuous low voltage.
4. A device according to the preceding claim characterized in that the continuous low voltage is 24 volts.

5. A device according to any one of the preceding claims characterized in that one of the electrical contact elements is electrically connected to the chassis and to the negative terminal BT- of the electrical generator and in that the other contact elements is connected to the positive terminal BT+ of the generator through the detector, while the negative terminal BT- of the generator is connected to the chassis.

6. A device according to any one of preceding claims 1 through 4 characterized in that one of the contact elements is electrically connected to the negative terminal BT- of the electrical generator and in that the other contact element is connected to the positive terminal BT+ of the generator through the detector, while the positive terminal BT+ is connected to the chassis.

7. A device according to claim 1 or 2 characterized in that each contact element is a sliding or friction shoe (28) or (29) that is displaced along the metal guide rail (2).

8. A device according to claim 1 characterized in that the detection means is a coil (33) of an electromagnet actuating the contacts of an interrupt switch (34).

9. A device according to claim 2 characterized in that the contact elements are longitudinally attached on either side of the guide wheel or wheels.

10. A device according to claim 1 characterized in that the contact elements are attached one behind the other on the chassis at the front of the series of vehicles.

11. A device according to claim 1 characterized in that a safety loop is provided at the front of the series of vehicles with its low voltage electrical generator BT+ and BT- and another safety loop at the rear of the series with its own low voltage electrical generator BT+ and BT-.

12. A device according to the preceding claim characterized in that the negative terminals BT- on the low voltage electrical generator are connected to each other and to the chassis.

13. A device according to claim 11 characterized in that the negative terminals BT- on the low voltage electrical generators are connected to each other and in that the positive terminals BT+ are connected to each other and to the chassis.